بسمه تعالی

شرح کار تابلو برق فاز گازی واحد PP (واحد LL)

تامین، مونتاژ و وایرینگ داخلی تابلو برق کشویی طرح سیواکن با مشخصات زیر:

1- تابلو فوق کشویی طرح SIVACON با کلاس حفاظتی IP42 و جهت نصب در In Door با ضخامت ورق 2 میلی متر باشد.

2- رنگ تابلو از نوع الکترو استاتیک با کد رنگ RAL7032 به ضخامت 120 میکرون باشد.

3- ابعاد تابلو ها ترجیحا 60*220*100 سانتی متر باشد.

4- جهت هر تابلو به صورت مستقل هیتر و روشنایی همراه با ترموستات و میکرو سوئیچ در نظر گرفته شود..

5- تمامی تجهیزات ، ترمینال ها و وایرینگ دارای لیبل نامبر و تگ نامبر باشند.

6- جهت تامین برق ورودی تابلو برای هر INCOMING و BUSCOPLER یک عدد کلید کشویی دژنکتور هوایی 4000 A مارک زیمنس مطابق جدول پیوست نصب گردد.

7- جهت اتصال سه فاز و نول تابلو ها به یکدیگر از باس (شمش مسی) استفاده گردد.

8- طراحی استراکچر ، جانمایی تجهیزات و طراحی مدار فرمان بر عهده شرکت مجری با تأییدیه ناظر می باشد.

9- جهت مدار فرمان هر فیدر یک عدد فیوز مینیاتوری بصورت مجزا لحاظ شود.

10- طراحی مدار باید به گونه ای باشد که هر فیدرVFDو هر فیدر MCC قابلیت استارت به صورت LOCAL – REMOT را دارا باشد.

11- هر فیدر VFD می‌بایست شرایط فرامین زیر را داشته و به اطاق کنترل اعلام نماید : – LOCAL / REMOTE – RUNING – SIGNAL ANALOG INPUT – SIGNAL ANALOG OUTPUT– FAULT – START / STOP

12- هر فیدر MCC می‌بایست شرایط فرامین زیر را داشته و به اطاق کنترل اعلام نماید : – LOCAL / REMOTE – RUNING – FAULT – START / STOP

13- هر فیدر 1-0 می‌بایست شرایط فرامین زیر را داشته و بر روی چراغ سیگنال نمایش دهد : ON – OFF – FAULT

14- وایرینگ قدرت داخلی تابلو از شمش ها تا ترمینال خروجی تابلو با وایر در 3 رنگ قرمز ، زرد و مشکی انجام شود.

15- سایز وایرینگ قدرت بر اساس رنج نهایی کلید حرارتی هر فیدر محاسبه و انجام گردد.

16- نصب چراغ سیگنال در3 عدد رنگ (قرمز – سبز – زرد) برروی درب تابلو جهت نمایش وضعیت ON – OFF – FAULT مربوط به کلید اصلی و همچنین مربوط به تمامی فیدر ها.

17- نصب 3 عدد چراغ سیگنال جهت نمایش برق ورودی تابلو به رنگ قرمز انجام گردد.(R-S-T)

18- باس بار اصلی تابلو شمش مسی سایز 100*10 میلی متر در نظرگرفته شود.

19- باس بار نول در هر تابلو در نظر گرفته شود.

20- باس بار ارت در هر تابلو درنظرگرفته شود.

21- جهت تابلو های INCOMING و BUSCOPLER تمامی تجهیزات اندازه گیری و فرامین (Local & Remote , CT و ...) لحاظ گردد و قابلیت نمایش جریان و ولتاژ هر خط بر روی درب تابلو فراهم شود.

22- تجهیزات داخل تابلو بصورت کلی شامل 10 **صفحه به پیوست می باشد.**

National Petrochemical Company

Petrochemical Research and Technology Co. (Arak Site)

Low Linear Density Poly Ethylene (LLDPE)

MCC PANEL **1/10**

Item	Description	Brand	Product No.	Incoming A	Incoming B	Bus Copler	Outgoing Type: Motor Protection	Outgoing Type: Motor Protection	Outgoing Type: Motor Protection	Outgoing Type: Motor Protection	Outgoing Type: Motor Protection	Outgoing Type: Motor Protection	Outgoing Type: Motor Protection	Outgoing Type: Motor Protection	Outgoing Type: Motor Protection	Outgoing Type: Motor Protection
			FEEDER TYPE	Incoming A	Incoming B	Bus Copler	Outgoing Type: Motor Protection	Outgoing Type: Motor Protection	Outgoing Type: Motor Protection	Outgoing Type: Motor Protection	Outgoing Type: Motor Protection	Outgoing Type: Motor Protection	Outgoing Type: Motor Protection	Outgoing Type: Motor Protection	Outgoing Type: Motor Protection	Outgoing Type: Motor Protection
			FEEDER CODE	Feeder Incoming (4000A)	Feeder Incoming (4000A)	Feeder Incoming (4000A)	Feeder Ref.1 (150KW)	Feeder Spare 1 (150KW)	Feeder CF421 (75KW)	Feeder Spare 2 (75KW)	Feeder CF401 (30KW)	Feeder CF411 (30KW)	Feeder CF621 (30KW)	Feeder Spare 3 (30KW)	Feeder P 621 (15KW)	Feeder Spare 4 (15KW)
			Incoming Location	A	B	B	A	A	A	B	B	B	A			
1	withdrawable circuit breaker with guide frame 3-pole, size III, IEC In=4000A to 690V, AC50/60Hz Icu=100kA at 500V rear connection horizontal Overcurrent release ETU 27 LSING protection adjustable 0.4-1 in Ground fault/N protection integrated Motorized/manual operating mechanism with spring charging motor AC 50/60 Hz 208-240 V or 220-250 V DC Activation AC 50/60 Hz 230 V, 220 V DC With 1st auxiliary release Shunt release "F", F1 50/60 Hz 230 V AC/220 V DC, 100% on-load factor With 2nd auxiliary release "F", F2 Shunt release 230 V AC/220 V DC, 100% on-load factor 2NO+2NC		3WL1340-4DG36-4GG2	1	1	1											
2	circuit breaker 3VA1 IEC frame 400 breaking capacity class S Icu=36kA @ 415V 3-pole, line protection TM240, ATAM, In=320A overload protection Ir=224A...320A short-circuit protection Ii=5...10 x In nut keeper kit		3VA1332- 4EF32-0AA0				1	1								
3	circuit breaker 3VA1 IEC frame 160 breaking capacity class N Icu=25kA @ 415V 3-pole, line protection TM220, ATFM, In=160A overload protection Ir=112A...160A short-circuit protection Ii=10 x In clamp connection		3VA1116-3EE36-0AA0						1	1						
4	Circuit breaker size S3 for motor protection, CLASS 10 A-release 57...75 A N-release 975 A screw terminal Standard switching capacity		3RV2041-4KA10								1	1	1	1		
5	Circuit breaker size S2 for motor protection, CLASS 10 A-release 32...40 A N-release 585 A screw terminal Standard switching capacity		3RV2031-4UA10												1	1
6	door mounted rotary operator standard IEC IP65 with door interlock accessory for: 3VA1 400/630 3VA2 400/630		3VA9467-0FK21				1	1	1	1						
7	Door-coupling rotary operating mechanism IP64 for circuit breaker Size S00...S3, black 330 mm shaft with support		3RV2926-0K								1	1	1	1	1	1
8	Auxiliary switch changeover contacts type HQ (7MM) accessory for 3VA1 and 3VA20 up to 3VA25		3VA9988-0AA12				1	1	1	1						
9	Auxiliary switch transverse 1 NO+1 NC screw terminal for circuit breaker 3RV2		3RV2901-1E								1	1	1	1	1	1
10	TRIP ALARM SWITCH CHANGEOVER CONTACTS TYPE HQ (7MM) ELECTRONIC ACCESSORY FOR 3VA1 and 3VA20 up to 3VA25		3VA9988-0AB13				1	1	1	1						
11	signaling switch for circuit breaker 3RV2 with screw terminal		3RV2921-1M								1	1	1	1	1	1
12	Power contactor, AC-3 300 A, 160 kW / 400 V AC (50-60 Hz) / DC operation 220-240 V UC Auxiliary contacts 2 NO + 2 NC 3-pole, Size S10 Busbar connections Drive: conventional screw terminal		3RT1066-6AP36				3	3								
13	Power contactor, AC-3 150 A, 75 kW / 400 V AC (50-60 Hz) / DC operation 220-240 V UC Auxiliary contacts 2 NO + 2 NC 3-pole, Size S6 Busbar connections Drive: conventional screw terminal		3RT1055-6AP36						3	3						
14	Power contactor, AC-3 65 A, 30 kW / 400 V 1 NO + 1 NC, 230 V AC, 50 Hz 3-pole, size S2 screw terminals		3RT2037-1AP00								1	1	1	1		
15	Power contactor, AC-3 38 A, 18.5 kW / 400 V 1 NO + 1 NC, 230 V AC 50 Hz, 3-pole, size S0 screw terminals		3RT2028-1AP00												1	1
16	first lateral auxiliary switch 1 NO, 1 NC, screw terminal, for contactors 3RT1		3RH1921-1DA11				3	3	3	3						
17	Auxiliary switch on the front, 2 NO + 2 NC Current path 1 NO, 1 NC, 1 NC, 1 NO for 3RH and 3RT screw terminal .3/.4, .1/.2,		3RH2911-1FA22								1	1	1	1	1	1
18	Overload relay 160...630 A for motor protection Size S10/S12, CLASS 5...30E Contactor mounting/stand-alone installation Main circuit: busbar connection Auxiliary circuit: Spring-type terminal Manual-Automatic-Reset Internal ground fault detection		3RB2163-4MF2				1	1								
19	Overload relay 55...250 A for motor protection Size S10/S12, CLASS 5...30E Contactor mounting/stand-alone installation Main circuit: busbar connection Auxiliary circuit: Spring-type terminal Manual-Automatic-Reset Internal ground fault detection		3RB2163-4GF2						1	1						
20	Overload relay 54...65 A Thermal For motor protection Size S2, Class 10 Contactor mounting Main circuit: Screw Auxiliary circuit: Screw Manual-Automatic-Reset		3RU2136-4JB0								1	1	1	1		
21	Overload relay 22...32 A Thermal For motor protection Size S2, Class 10 Contactor mounting Main circuit: Screw Auxiliary circuit: Screw Manual-Automatic-Reset		3RU2136-4EB0												1	1
22	Cable release for reset 0.6 m for Size S00...S3		3RU1900-1C				1	1	1	1	1	1	1	1	1	1
23	Miniature circuit breaker 230/400 V 6kA, 1-pole, C, 6A		5SL6106-7	1	1	1	1	1	1	1	1	1	1	1	1	1
24	Miniature circuit breaker 230/400 V 6kA, 1-pole, C, 4A		5SL6104-7	5	5	5										
25	Harmony, Modular multifunction 3-phase supply control relay, 5 A, 2 CO, 220...480 V AC		RM35TF30	1	1	1										
26	RIF-3... relay base, for octal relay with 3 changeover contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5		2900936	2	2	2	2	2	2	2	2	2	2	2	2	2
27	Plug-in octal relays with power contacts, 3 changeover contacts, test button, mechanical switching position indicator, input voltage: 230VAC		2903696	2	2	2	2	2	2	2	2	2	2	2	2	2
28	Digital monitoring relay for residual current monitoring (with current transformer 3UL23) Setting range 0.03...40 A separate for warning threshold and switch-off value supply voltage 24 ... 240 V AC/DC, 50 .. 60Hz ON delay and tripping delay 0.1 to 20 s Shutdown hysteresis up to 50% Warning hysteresis 5% fixed Width 22.5 mm, 2 change-over contacts with or without fault buffer spring-type connection system		3UG4625-2CW30	1	1	1										
29	EasyLogic PM2220, Power & Energy meter, up to the 15th harmonic, LCD display, RS485, RJ45 quick click CTs		PM2220	1	1	1										
30	Current Transformer , Raito : 4000/5A, Burden: 40VA, Class: 0.5		AL5-4000/5	3	3	3										
31	Current Transformer , Raito : 300/1A, Burden: 15VA, Class: 0.5		AL1-300/1				1	1								
32	Current Transformer , Raito : 150/1A, Burden: 10VA, Class: 0.5		AL1-150/1						1	1						
33	Current Transformer , Raito : 75/1A, Burden: 10VA, Class: 0.5		AL1-70/1								1	1	1	1		
34	Current Transducer Ziegler PRO - CA / AVG 5A 40-300U 4-20mA		CA-AVG-05-F-I-02				1	1	1	1	1	1	1	1	1	1
35	Harmony, Modular timing relay, 8 A, 2 CO, 0.1 s…100 h, multifunction, 12..240 V AC/DC		RE22R2MMW	1	1	1	1	1	1	1						
36	Harmony XB7, Monolithic selector switch, plastic, black, Ø22, stay put, 3 positions, stay put, 2 NO		XB7ND33	2	2	2										
37	Harmony XB7, Monolithic push button, plastic, green, Ø22, spring return, unmarked, 1 NO		XB7NA31	1	1	1										
38	Harmony XB7, Monolithic push button, plastic,red, Ø22, spring return, unmarked, 1 NC		XB7NA42	1	1	1										
39	Pilot light, Harmony XB7, round Ø22 mm, Green, integral LED, 230...240 V, faston connectors		XB7EV03MP3	2	2	2	1	1	1	1	1	1	1	1	1	1
40	Pilot light, Harmony XB7, round Ø22 mm, Red, integral LED, 230...240 V, faston connectors		XB7EV04MP3	5	5	5	1	1	1	1	1	1	1	1	1	1
41	Pilot light, Harmony XB7, round Ø22 mm, Yello, integral LED, 230...240 V, faston connectors		XB7EV05MP3	2	2	2	1	1	1	1	1	1	1	1	1	1

National Petrochemical Company

Petrochemical Research and Technology Co. (Arak Site)

Low Linear Density Poly Ethylene (LLDPE)

MCC PANEL **2/10**

Item	Description	Brand	FEEDER TYPE	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection
			FEEDER CODE	Feeder P 031 (11KW)	Feeder P 034 (11KW)	Feeder P 035 (11KW)	Feeder Ref 2 (11KW)	Feeder Ref 3 (11KW)	Feeder Ref 4 (11KW)	Feeder Fan Coling (11KW)	Feeder Spare 5 (11KW)	Feeder Spare 6 (11KW)	FeederSpare 7 (11KW)	Feeder P 361 (7.5KW)	Feeder P 311 (7.5KW)	Feeder Spare 8 (7.5KW)
			Incoming Location	A	A	A	B	B	B	B	B	A	A	A	A	B
			Product No.													
1	Circuit breaker size S0 for motor protection, CLASS 10 A-release 27...32 A N-release 400 A screw terminal Standard switching capacity		3RV2021-4EA10	1	1	1	1	1	1	1	1	1	1			
2	Circuit breaker size S0 for motor protection, CLASS 10 A-release 18...25 A N-release 325 A Screw terminal Standard switching capacity		3RV2021-4DA10											1	1	1
3	Door-coupling rotary operating mechanism IP64 for circuit breaker Size S00...S3, black 330 mm shaft with support		3RV2926-0K	1	1	1	1	1	1	1	1	1	1	1	1	1
4	Auxiliary switch transverse 1 NO+1 NC screw terminal for circuit breaker 3RV2		3RV2901-1E	1	1	1	1	1	1	1	1	1	1	1	1	1
5	signaling switch for circuit breaker 3RV2 with screw terminal		3RV2921-1M	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Power contactor, AC-3 32 A, 15 kW / 400 V 1 NO + 1 NC, 230 V AC, 50 Hz 3-pole, size S0 screw terminals		3RT2027-1AP00	1	1	1	1	1	1	1	1	1	1			
7	power contactor, AC-3 25 A, 11 kW / 400 V 1 NO + 1 NC, 230 V AC, 50 Hz, 3-pole, Size S0 screw terminal		3RT2026-1AP00											1	1	1
8	Auxiliary switch on the front, 2 NO + 2 NC Current path 1 NO, 1 NC, 1 NC, 1 NO for 3RH and 3RT screw terminal .3/.4, .1/.2,		3RH2911-1FA22	1	1	1	1	1	1	1	1	1	1	1	1	1
9	Overload relay 18...25 A Thermal For motor protection Size S2, Class 10 Contactor mounting Main circuit: Screw Auxiliary circuit: Screw Manual-Automatic-Reset		3RU2136-4DB0	1	1	1	1	1	1	1	1	1	1			
10	Overload relay 11...16 A Thermal For motor protection Size S2, Class 10 Contactor mounting Main circuit: Screw Auxiliary circuit: Screw Manual-Automatic-Reset		3RU2136-4AB0											1	1	1
11	Cable release for reset 0.6 m for Size S00...S3		3RU1900-1C	1	1	1	1	1	1	1	1	1	1	1	1	1
12	Miniature circuit breaker 230/400 V 6kA, 1-pole, C, 6A		5SL6106-7	1	1	1	1	1	1	1	1	1	1	1	1	1
13	RIF-3... relay base, for octal relay with 3 changeover contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5		2900936	2	2	2	2	2	2	2	2	2	2	2	2	2
14	Plug-in octal relays with power contacts, 3 changeover contacts, test button, mechanical switching position indicator, input voltage: 230VAC		2903696	2	2	2	2	2	2	2	2	2	2	2	2	2
15	Pilot light, Harmony XB7, round Ø22 mm, Green, integral LED, 230...240 V, faston connectors		XB7EV03MP3	1	1	1	1	1	1	1	1	1	1	1	1	1
16	Pilot light, Harmony XB7, round Ø22 mm, Red, integral LED, 230...240 V, faston connectors		XB7EV04MP3	1	1	1	1	1	1	1	1	1	1	1	1	1
17	Pilot light, Harmony XB7, round Ø22 mm, Yello, integral LED, 230...240 V, faston connectors		XB7EV05MP3	1	1	1	1	1	1	1	1	1	1	1	1	1

National Petrochemical Company

Petrochemical Research and Technology Co. (Arak Site)

Low Linear Density Poly Ethylene (LLDPE)

MCC PANEL **3/10**

Item	Description	Brand	FEEDER TYPE	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection
			FEEDER CODE	Feeder P 111 (5.5KW)	Feeder Ref 5 (5.5KW)	Feeder Ref 6 (5.5KW)	Feeder P-CF401 (5.5KW)	Feeder P-CF411 (5.5KW)	Feeder P-CF421 (5.5KW)	Feeder P-CF621 (5.5KW)	Feeder Spare 9 (5.5KW)	Feeder Spare 10 (5.5KW)	FeederSpare 11 (5.5KW)	Feeder P 023 (4KW)	Feeder Spare 12 (4KW)	Feeder P 022 (3KW)
			Incoming Location	B	B	B	A	A	A	A	A	B	B	A	B	A
			Product No.													
1	Circuit breaker size S2 for motor protection, CLASS 10 A-release 12...17 A N-release 260 A screw terminal Standard switching capacity		3RV2031-4TA10	1	1	1	1	1	1	1	1	1	1			
2	Circuit breaker size S0 for motor protection, CLASS 10 A-release 7...10 A N release 130 A screw terminal Standard switching capacity		3RV2021-1JA10											1	1	
3	Circuit breaker size S0 for motor protection, CLASS 10 A-release 5.5...8 A N-release 104 A screw terminal Standard switching capacity		3RV2021-1HA10													1
4	Door-coupling rotary operating mechanism IP64 for circuit breaker Size S00...S3, black 330 mm shaft with support		3RV2926-0K	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Auxiliary switch transverse 1 NO+1 NC screw terminal for circuit breaker 3RV2		3RV2901-1E	1	1	1	1	1	1	1	1	1	1	1	1	1
6	signaling switch for circuit breaker 3RV2 with screw terminal		3RV2921-1M	1	1	1	1	1	1	1	1	1	1	1	1	1
7	power contactor, AC-3 17 A, 7.5 kW / 400 V 1 NO + 1 NC, 230 V AC, 50 Hz, 3-pole, Size S0 screw terminal		3RT2025-1AP00	1	1	1	1	1	1	1	1	1	1			
8	power contactor, AC-3 9 A, 4 kW / 400 V 1 NO + 1 NC, 230 V AC, 50 Hz 3-pole, Size S0 screw terminal		3RT2023-1AP00											1	1	
9	Power contactor, AC-3 7 A, 3 kW / 400 V 1 NO, 230 V AC, 50 / 60 Hz 3-pole, Size S00 screw terminal		3RT2015-1AP01													1
10	Auxiliary switch on the front, 2 NO + 2 NC Current path 1 NO, 1 NC, 1 NC, 1 NO for 3RH and 3RT screw terminal .3/.4, .1/.2,		3RH2911-1FA22	1	1	1	1	1	1	1	1	1	1	1	1	1
11	Overload relay 9...12.5 A Thermal For motor protection Size S2 Class 10 Contactor mounting Main circuit: screw terminal Auxiliary circuit: screw terminal Manual-Automatic-Reset		3RU2136-1KB0	1	1	1	1	1	1	1	1	1	1			
12	Overload relay 7.0...10 A Thermal For motor protection Size S0, Class 10 Contactor mounting Main circuit: Screw Auxiliary circuit: Screw Manual-Automatic-Reset		3RU2126-1JB0											1	1	
13	Overload relay 4.5...6.3 A Thermal For motor protection Size S00, Class 10 Contactor mounting Main circuit: Screw Auxiliary circuit: Screw Manual-Automatic-Reset		3RU2116-1GB0													1
14	Cable release for reset 0.6 m for Size S00...S3		3RU1900-1C	1	1	1	1	1	1	1	1	1	1	1	1	1
15	Miniature circuit breaker 230/400 V 6kA, 1-pole, C, 6A		5SL6106-7	1	1	1	1	1	1	1	1	1	1	1	1	1
16	RIF-3... relay base, for octal relay with 3 changeover contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5		2900936	2	2	2	2	2	2	2	2	2	2	2	2	2
17	Plug-in octal relays with power contacts, 3 changeover contacts, test button, mechanical switching position indicator, input voltage: 230VAC		2903696	2	2	2	2	2	2	2	2	2	2	2	2	2
18	Pilot light, Harmony XB7, round Ø22 mm, Green, integral LED, 230...240 V, faston connectors		XB7EV03MP3	1	1	1	1	1	1	1	1	1	1	1	1	1
19	Pilot light, Harmony XB7, round Ø22 mm, Red, integral LED, 230...240 V, faston connectors		XB7EV04MP3	1	1	1	1	1	1	1	1	1	1	1	1	1
20	Pilot light, Harmony XB7, round Ø22 mm, Yello, integral LED, 230...240 V, faston connectors		XB7EV05MP3	1	1	1	1	1	1	1	1	1	1	1	1	1

National Petrochemical Company

Petrochemical Research and Technology Co. (Arak Site)

Low Linear Density Poly Ethylene (LLDPE)

MCC PANEL **4/10**

Item	Description	Brand	FEEDER TYPE	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection
			FEEDER CODE	Feeder P 711 (3KW)	Feeder P 712 (3KW)	Feeder Spare 13 (3KW)	Feeder P 021 (2.2KW)	Feeder P 321 A (2.2KW)	Feeder P 321 B (2.2KW)	Feeder H-CF401 (2.2KW)	Feeder H-CF411 (2.2KW)	Feeder H-CF421 (2.2KW)	Feeder H-CF621 (2.2KW)	Feeder Spare 14 (2.2KW)	Feeder Spare 15 (2.2KW)	Feeder Spare 16 (2.2KW)
			Incoming Location	A	B	B	A	A	A	B	B	B	B	B	A	A
			Product No.													
1	Circuit breaker size S2 for motor protection, CLASS 10 A-release 12...17 A N-release 260 A screw terminal Standard switching capacity		3RV2021-1HA10	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Door-coupling rotary operating mechanism IP64 for circuit breaker Size S00...S3, black 330 mm shaft with support		3RV2926-0K	1	1	1	1	1	1	1	1	1	1	1	1	1
3	Auxiliary switch transverse 1 NO+1 NC screw terminal for circuit breaker 3RV2		3RV2901-1E	1	1	1	1	1	1	1	1	1	1	1	1	1
4	signaling switch for circuit breaker 3RV2 with screw terminal		3RV2921-1M	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Power contactor, AC-3 7 A, 3 kW / 400 V 1 NO, 230 V AC, 50 / 60 Hz 3-pole, Size S00 screw terminal		3RT2015-1AP01	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Auxiliary switch on the front, 2 NO + 2 NC Current path 1 NO, 1 NC, 1 NC, 1 NO for 3RH and 3RT screw terminal .3/.4, .1/.2,		3RH2911-1FA22	1	1	1	1	1	1	1	1	1	1	1	1	1
7	Overload relay 4.5...6.3 A Thermal For motor protection Size S00, Class 10 Contactor mounting Main circuit: Screw Auxiliary circuit: Screw Manual-Automatic-Reset		3RU2116-1GB0	1	1	1										
8	Overload relay 3.5...5.0 A Thermal For motor protection Size S00, Class 10 Contactor mounting Main circuit: Screw Auxiliary circuit: Screw Manual-Automatic-Reset		3RU2116-1FB0				1	1	1	1	1	1	1	1	1	1
9	Cable release for reset 0.6 m for Size S00...S3		3RU1900-1C	1	1	1	1	1	1	1	1	1	1	1	1	1
10	Miniature circuit breaker 230/400 V 6kA, 1-pole, C, 6A		5SL6106-7	1	1	1	1	1	1	1	1	1	1	1	1	1
11	RIF-3... relay base, for octal relay with 3 changeover contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5		2900936	2	2	2	2	2	2	2	2	2	2	2	2	2
12	Plug-in octal relays with power contacts, 3 changeover contacts, test button, mechanical switching position indicator, input voltage: 230VAC		2903696	2	2	2	2	2	2	2	2	2	2	2	2	2
13	Pilot light, Harmony XB7, round Ø22 mm, Green, integral LED, 230...240 V, faston connectors		XB7EV03MP3	1	1	1	1	1	1	1	1	1	1	1	1	1
14	Pilot light, Harmony XB7, round Ø22 mm, Red, integral LED, 230...240 V, faston connectors		XB7EV04MP3	1	1	1	1	1	1	1	1	1	1	1	1	1
15	Pilot light, Harmony XB7, round Ø22 mm, Yello, integral LED, 230...240 V, faston connectors		XB7EV05MP3	1	1	1	1	1	1	1	1	1	1	1	1	1

National Petrochemical Company

Petrochemical Research and Technology Co. (Arak Site)

Low Linear Density Poly Ethylene (LLDPE)

MCC PANEL **5/10**

Item	Description		FEEDER TYPE	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection
			FEEDER CODE	Feeder P 121 (1.5KW)	Feeder P 131 (1.5KW)	Feeder P 141 (1.5KW)	Feeder P 341 (1.5KW)	Feeder P 351 (1.5KW)	Feeder P 401 (1.5KW)	Feeder SR-531 (1.5KW)	Feeder Spare 17 (1.5KW)	Feeder Spare 18 (1.5KW)	FeederSpare 19 (1.5KW)
			Incoming Location	A	A	A	A	B	B	B	B	B	A
			Product No.										
1	Circuit breaker size S0 for motor protection, CLASS 10 A-release 5.5...8 A N-release 104 A screw terminal Standard switching capacity		3RV2021-1HA10	1	1	1	1	1	1	1	1	1	1
2	Door-coupling rotary operating mechanism IP64 for circuit breaker Size S00...S3, black 330 mm shaft with support		3RV2926-0K	1	1	1	1	1	1	1	1	1	1
3	Auxiliary switch transverse 1 NO+1 NC screw terminal for circuit breaker 3RV2		3RV2901-1E	1	1	1	1	1	1	1	1	1	1
4	signaling switch for circuit breaker 3RV2 with screw terminal		3RV2921-1M	1	1	1	1	1	1	1	1	1	1
5	Power contactor, AC-3 7 A, 3 kW / 400 V 1 NO, 230 V AC, 50 / 60 Hz 3-pole, Size S00 screw terminal		3RT2015-1AP01	1	1	1	1	1	1	1	1	1	1
6	Auxiliary switch on the front, 2 NO + 2 NC Current path 1 NO, 1 NC, 1 NC, 1 NO for 3RH and 3RT screw terminal .3/.4, .1/.2,		3RH2911-1FA22	1	1	1	1	1	1	1	1	1	1
7	Overload relay 9...12.5 A Thermal For motor protection Size S2 Class 10 Contactor mounting Main circuit: screw terminal Auxiliary circuit: screw terminal Manual-Automatic-Reset		3RU2136-1KB0	1	1	1	1	1	1	1	1	1	1
8	Overload relay 2.2...3.2 A Thermal For motor protection Size S0, Class 10 Contactor mounting Main circuit: Screw Auxiliary circuit: Screw Manual-Automatic-Reset		3RU2126-1DB0	1	1	1	1	1	1	1	1	1	1
9	Cable release for reset 0.6 m for Size S00...S3		3RU1900-1C	1	1	1	1	1	1	1	1	1	1
10	Miniature circuit breaker 230/400 V 6kA, 1-pole, C, 6A		5SL6106-7	1	1	1	1	1	1	1	1	1	1
11	RIF-3... relay base, for octal relay with 3 changeover contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5		2900936	2	2	2	2	2	2	2	2	2	2
12	Plug-in octal relays with power contacts, 3 changeover contacts, test button, mechanical switching position indicator, input voltage: 230VAC		2903696	2	2	2	2	2	2	2	2	2	2
13	Pilot light, Harmony XB7, round Ø22 mm, Green, integral LED, 230...240 V, faston connectors		XB7EV03MP3	1	1	1	1	1	1	1	1	1	1
14	Pilot light, Harmony XB7, round Ø22 mm, Red, integral LED, 230...240 V, faston connectors		XB7EV04MP3	1	1	1	1	1	1	1	1	1	1
15	Pilot light, Harmony XB7, round Ø22 mm, Yello, integral LED, 230...240 V, faston connectors		XB7EV05MP3	1	1	1	1	1	1	1	1	1	1

National Petrochemical Company

Petrochemical Research and Technology Co. (Arak Site)

Low Linear Density Poly Ethylene (LLDPE)

MCC PANEL **6/10**

Item	Description	Brand	FEEDER TYPE	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control
			FEEDER CODE	Feeder CF421 (75KW)	Feeder Spare 20 (75KW)	Feeder CF411 (30KW)	Feeder CF401 (30KW)	Feeder BL532 (30KW)	Feeder CF621 (30KW)	Feeder BL531 (30KW)	Feeder Spare 21 (30KW)	Feeder Spare 22 (30KW)	Feeder P261 (11KW)	Feeder Spare 23 (11KW)	Feeder Spare 24 (11KW)	Feeder P251 (7.5KW)
			Incoming Location	A	B	A	A	A	B	B	A	B	B	B	A	A
			Product No.													
1	circuit breaker 3VA1 IEC frame 160 breaking capacity class N Icu=25kA @ 415V 3-pole, line protection TM220, ATFM, In=160A overload protection Ir=112A...160A short-circuit protection Ii=10 x In clamp connection		3VA1116-3EE36-0AA0	1	1											
2	Circuit breaker size S2 for motor protection, CLASS 10 A-release 54...65 A N-release 845 A screw terminal Standard switching capacity		3RV2031-4JA10			1	1	1	1	1	1	1				
3	Circuit breaker size S0 for motor protection, CLASS 10 A-release 27...32 A N-release 400 A screw terminal Standard switching capacity		3RV2021-4EA10										1	1	1	
4	Circuit breaker size S0 for motor protection, CLASS 10 A-release 18...25 A N-release 325 A Screw terminal Standard switching capacity		3RV2021-4DA10													1
5	Auxiliary switch changeover contacts type HP (14MM) accessory for 3VA1 and 3VA20 up to 3VA25		3VA9988-0AA11	1	1											
6	Auxiliary switch transverse 1 NO+1 NC screw terminal for circuit breaker 3RV2		3RV2901-1E			1	1	1	1	1	1	1	1	1	1	1
7	Trip alarm switch changeover contacts type HQ (7MM) accessory for 3VA1 and 3VA20 up to 3VA25		3VA9988-0AB12	1	1											
8	signaling switch for circuit breaker 3RV2 with screw terminal		3RV2921-1M			1	1	1	1	1	1	1	1	1	1	1
9	Inverter, 380-480 V, Rated power 75 kW , IN: 145 A Frequency Converter		ACS580-01-145A-4	1	1											
10	Inverter, 380-480 V, Rated power 30 kW , IN: 62 A Frequency Converter		ACS580-01-062A-4			1	1	1	1	1	1	1				
11	Inverter, 380-480 V, Rated power 11 kW , IN: 25 A Frequency Converter		ACS580-01-026A-4										1	1	1	
12	Inverter, 380-480 V, Rated power 7.5 kW , IN: 17 A Frequency Converter		ACS580-01-018A-4													1
13	Miniature circuit breaker 230/400 V 6kA, 1-pole, C, 6A		5SL6106-7	1	1	1	1	1	1	1	1	1	1	1	1	1
14	RIF-3... relay base, for octal relay with 3 changeover contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5		2900936	3	3	3	3	3	3	3	3	3	3	3	3	3
15	Plug-in octal relays with power contacts, 3 changeover contacts, test button, mechanical switching position indicator, input voltage: 230VAC		2903696	3	3	3	3	3	3	3	3	3	3	3	3	3
16	Pilot light, Harmony XB7, round Ø22 mm, Green, integral LED, 230...240 V, faston connectors		XB7EV03MP3	1	1	1	1	1	1	1	1	1	1	1	1	1
17	Pilot light, Harmony XB7, round Ø22 mm, Red, integral LED, 230...240 V, faston connectors		XB7EV04MP3	1	1	1	1	1	1	1	1	1	1	1	1	1
18	Pilot light, Harmony XB7, round Ø22 mm, Yello, integral LED, 230...240 V, faston connectors		XB7EV05MP3	1	1	1	1	1	1	1	1	1	1	1	1	1

National Petrochemical Company

Petrochemical Research and Technology Co. (Arak Site)

Low Linear Density Poly Ethylene (LLDPE)

MCC PANEL **7/10**

Item	Description	Brand	FEEDER TYPE	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control
			FEEDER CODE	Feeder Spare 25 (7.5KW)	Feeder Spare 26 (5.5KW)	Feeder Spare 27 (5.5KW)	Feeder A611 (4KW)	Feeder Spare 28 (4KW)	Feeder A211 (1.5KW)	Feeder A221 (1.5KW)	Feeder BL531 (1.5KW)	Feeder BL541 (1.5KW)	Feeder BL542 (1.5KW)	Feeder BL543 (1.5KW)	Feeder Spare 29 (1.5KW)	Feeder Spare 30 (1.5KW)
			Incoming Location	B	A	B	A	B	A	A	A	B	B	B	A	B
			Product No.													
1	Circuit breaker size S0 for motor protection, CLASS 10 A-release 18...25 A N-release 325 A Screw terminal Standard switching capacity		3RV2021-4DA10	1												
2	Circuit breaker size S2 for motor protection, CLASS 10 A-release 12...17 A N-release 260 A screw terminal Standard switching capacity		3RV2031-4TA10		1	1	1	1								
3	Circuit breaker size S0 for motor protection, CLASS 10 A-release 3.5...5 A N release 65 A screw terminal Standard switching capacity		3RV2021-1FA10						1	1	1	1	1	1	1	1
4	Auxiliary switch transverse 1 NO+1 NC screw terminal for circuit breaker 3RV2		3RV2901-1E	1	1	1	1	1	1	1	1	1	1	1	1	1
5	signaling switch for circuit breaker 3RV2 with screw terminal		3RV2921-1M	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Inverter, 380-480 V, Rated power 7.5 kW , IN: 17 A Frequency Converter		ACS580-01-018A-4	1												
7	Inverter, 380-480 V, Rated power 5.5 kW , IN: 12.6 A Frequency Converter		ACS580-01-12A7-4		1	1										
8	Inverter, 380-480 V, Rated power 4 kW , IN: 9.4 A Frequency Converter		ACS580-01-09A5-4				1	1								
9	Inverter, 380-480 V, Rated power 1.5 kW , IN: 4 A Frequency Converter		ACS580-01-04A1-4						1	1	1	1	1	1	1	1
10	Miniature circuit breaker 230/400 V 6kA, 1-pole, C, 6A		5SL6106-7	1	1	1	1	1	1	1	1	1	1	1	1	1
11	RIF-3... relay base, for octal relay with 3 changeover contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5		2900936	3	3	3	3	3	3	3	3	3	3	3	3	3
12	Plug-in octal relays with power contacts, 3 changeover contacts, test button, mechanical switching position indicator, input voltage: 230VAC		2903696	3	3	3	3	3	3	3	3	3	3	3	3	3
13	Pilot light, Harmony XB7, round Ø22 mm, Green, integral LED, 230...240 V, faston connectors		XB7EV03MP3	1	1	1	1	1	1	1	1	1	1	1	1	1
14	Pilot light, Harmony XB7, round Ø22 mm, Red, integral LED, 230...240 V, faston connectors		XB7EV04MP3	1	1	1	1	1	1	1	1	1	1	1	1	1
15	Pilot light, Harmony XB7, round Ø22 mm, Yello, integral LED, 230...240 V, faston connectors		XB7EV05MP3	1	1	1	1	1	1	1	1	1	1	1	1	1

National Petrochemical Company			FEEDER TYPE	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control
Petrochemical Research and Technology Co. (Arak Site) Low Linear Density Poly Ethylene (LLDPE) MCC PANEL **8/10**			FEEDER CODE	Feeder AV121 (1.1KW)	Feeder AV131 (1.1KW)	Feeder AV141 (1.1KW)	Feeder Spare 31 (1.1KW)
Item	Description	Brand	Incoming Location	**A**	**A**	**B**	**B**
			Product No.				
1	Circuit breaker size S0 for motor protection, CLASS 10 A-release 1.8...2.5 A N-release 33 A screw terminal Standard switching capacity		3RV2021-1CA10	**1**	**1**	**1**	**1**
2	Auxiliary switch transverse 1 NO+1 NC screw terminal for circuit breaker 3RV2		3RV2901-1E	**1**	**1**	**1**	**1**
3	signaling switch for circuit breaker 3RV2 with screw terminal		3RV2921-1M	**1**	**1**	**1**	**1**
4	Inverter, 380-480 V, Rated power 1.1 kW , IN: 3.3 A Frequency Converter		ACS580-01-03A4-4	**1**	**1**	**1**	**1**
5	Miniature circuit breaker 230/400 V 6kA, 1-pole, C, 6A		5SL6106-7	**1**	**1**	**1**	**1**
6	RIF-3... relay base, for octal relay with 3 changeover contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5		2900936	**3**	**3**	**3**	**3**
7	Plug-in octal relays with power contacts, 3 changeover contacts, test button, mechanical switching position indicator, input voltage: 230VAC		2903696	**3**	**3**	**3**	**3**
8	Pilot light, Harmony XB7, round Ø22 mm, Green, integral LED, 230...240 V, faston connectors		XB7EV03MP3	**1**	**1**	**1**	**1**
9	Pilot light, Harmony XB7, round Ø22 mm, Red, integral LED, 230...240 V, faston connectors		XB7EV04MP3	**1**	**1**	**1**	**1**
10	Pilot light, Harmony XB7, round Ø22 mm, Yello, integral LED, 230...240 V, faston connectors		XB7EV05MP3	**1**	**1**	**1**	**1**

National Petrochemical Company

Petrochemical Research and Technology Co. (Arak Site)

Low Linear Density Poly Ethylene (LLDPE)

MCC PANEL **9/10**

Item	Description	Brand	FEEDER TYPE	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection
			FEEDER CODE	Feeder CWS 1 (100KVA)	Feeder CWS 2 (100KVA)	Feeder Lighting (100KVA)	Feeder Tracing (100KVA)	Feeder Spare 32 (100KVA)	Feeder Spare 33 (100KVA)	Feeder Analyzer (80KVA)	Feeder Spare 34 (80KVA)	Feeder Sockets A (50KVA)
			Incoming Location	A	B	A	B	A	B	B	A	A
			Product No.									
1	circuit breaker 3VA1 IEC frame 400 breaking capacity class S Icu=36kA @ 415V 3-pole, line protection TM240, ATAM, In=320A overload protection Ir=224A...320A short-circuit protection Ii=5...10 x In nut keeper kit		3VA1332-4EF32-0AA0	1	1	1	1	1	1			
2	circuit breaker 3VA1 IEC frame 250 breaking capacity class S Icu=36kA @ 415V 3-pole, line protection TM240, ATAM, In=250A overload protection Ir=175A...250A short-circuit protection Ii=5...10 x In nut keeper kit		3VA1225-4EF32-0AA0							1	1	
3	circuit breaker 3VA1 IEC frame 160 breaking capacity class N Icu=25kA @ 415V 3-pole, line protection TM220, ATFM, In=160A overload protection Ir=112A...160A short-circuit protection Ii=10 x In clamp connection		3VA1116-3EE36-0AA0									1
4	Auxiliary switch changeover contacts type HP (14MM) accessory for 3VA1 and 3VA20 up to 3VA25		3VA9988-0AA11	1	1	1	1	1	1	1	1	1
5	Trip alarm switch changeover contacts type HQ (7MM) accessory for 3VA1 and 3VA20 up to 3VA25		3VA9988-0AB12	1	1	1	1	1	1	1	1	1
6	door mounted rotary operator standard IEC IP65 with door interlock accessory for: 3VA1 400/630 3VA2 400/630		3VA9467-0FK21	1	1	1	1	1	1	1	1	1
7	Miniature circuit breaker 230/400 V 6kA, 1-pole, C, 6A		5SL6106-7	1	1	1	1	1	1	1	1	1
8	Pilot light, Harmony XB7, round Ø22 mm, Green, integral LED, 230...240 V, faston connectors		XB7EV03MP3	1	1	1	1	1	1	1	1	1
9	Pilot light, Harmony XB7, round Ø22 mm, Red, integral LED, 230...240 V, faston connectors		XB7EV04MP3	1	1	1	1	1	1	1	1	1
10	Pilot light, Harmony XB7, round Ø22 mm, Yello, integral LED, 230...240 V, faston connectors		XB7EV05MP3	1	1	1	1	1	1	1	1	1

National Petrochemical Company

Petrochemical Research and Technology Co. (Arak Site)

Low Linear Density Poly Ethylene (LLDPE)

MCC PANEL **10/10**

Item	Description	Brand	FEEDER TYPE	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection
			FEEDER CODE	Feeder Sockets B (50KVA)	Feeder UPS (50KVA)	Feeder Spare 35 (50KVA)	FeederMarshaling A (10KVA)	Feeder Marshaling B (10KVA)	Feeder Spare 36 (10KVA)	Feeder PDP A (5.5KVA)	Feeder PDP B (5.5KVA)
			Incoming Location	B	B	A	A	B	B	A	B
			Product No.								
1	circuit breaker 3VA1 IEC frame 160 breaking capacity class N Icu=25kA @ 415V 3-pole, line protection TM220, ATFM, In=160A overload protection Ir=112A...160A short-circuit protection Ii=10 x In clamp connection		3VA1116-3EE36-0AA0	1	1	1					
2	Circuit breaker size S0 for motor protection, CLASS 10 A-release 10...16 A N-release 208 A screw terminal Standard switching capacity		3RV2021-4AA10				1	1	1		
3	Circuit breaker size S2 for motor protection, CLASS 10 A-release 12...17 A N-release 260 A screw terminal Standard switching capacity		3RV2031-4TA10							1	1
4	Trip alarm switch changeover contacts type HQ (7MM) accessory for 3VA1 and 3VA20 up to 3VA25		3VA9988-0AA11	1	1	1					
5	Auxiliary switch transverse 1 NO+1 NC screw terminal for circuit breaker 3RV2		3RV2901-1E				1	1	1	1	1
6	Trip alarm switch changeover contacts type HQ (7MM) accessory for 3VA1 and 3VA20 up to 3VA25		3VA9988-0AB12	1	1	1					
7	signaling switch for circuit breaker 3RV2 with screw terminal		3RV2921-1M				1	1	1	1	1
8	door mounted rotary operator standard IEC IP65 with door interlock accessory for: 3VA1 400/630 3VA2 400/630		3VA9467-0FK21	1	1	1					
9	Door-coupling rotary operating mechanism IP64 for circuit breaker Size S00...S3, black 330 mm shaft with support		3RV2926-0K				1	1	1	1	1
10	Miniature circuit breaker 230/400 V 6kA, 1-pole, C, 6A		5SL6106-7	1	1	1	1	1	1	1	1
11	Pilot light, Harmony XB7, round Ø22 mm, Green, integral LED, 230...240 V, faston connectors		XB7EV03MP3	1	1	1	1	1	1	1	1
12	Pilot light, Harmony XB7, round Ø22 mm, Red, integral LED, 230...240 V, faston connectors		XB7EV04MP3	1	1	1	1	1	1	1	1
13	Pilot light, Harmony XB7, round Ø22 mm, Yello, integral LED, 230...240 V, faston connectors		XB7EV05MP3	1	1	1	1	1	1	1	1

بسمه تعالی

شرح کار تابلو برق واحد کاتالیست PP (فازگازی)

تامین، مونتاژ و وایرینگ داخلی تابلو برق کشویی طرح سیواکن با مشخصات زیر:

۱- تابلو فوق کشویی طرح SIVACON با کلاس حفاظتی IP42 و جهت نصب در In Door با ضخامت ورق ۲ میلی متر باشد.

۲- رنگ تابلو از نوع الکترو استاتیک با کد رنگ RAL7032 به ضخامت 120 میکرون باشد.

۳- ابعاد تابلو ها ترجیحا ۶۰*۲۲۰*۱۰۰ سانتی متر باشد.

۴- جهت هر تابلو به صورت مستقل هیتر و روشنایی همراه با ترموستات و میکرو سوئیچ در نظر گرفته شود..

۵- تمامی تجهیزات ، ترمینال ها و وایرینگ دارای لیبل نامبر و تگ نامبر باشند.

۶- جهت تامین برق ورودی تابلو یک عدد کلید کشویی دژنکتور هوایی 2500 A مارک زیمنس نصب گردد.

۷- جهت اتصال سه فاز و نول تابلو ها به یکدیگر از باس (شمش مسی) استفاده گردد.

۸- طراحی استراکچر ، جانمایی تجهیزات و طراحی مدار فرمان بر عهده شرکت مجری با تأییدیه ناظر می باشد.

۹- جهت مدار فرمان هر فیدر مطابق آیتم شماره 30 یک عدد فیوز مینیاتوری بصورت مجزا لحاظ شود.

۱۰- طراحی مدار باید به گونه ای باشد که هر فیدرVFDو هر فیدر MCC قابلیت استارت به صورت LOCAL – REMOT را دارا باشد.

۱۱- هر فیدر VFD می‌بایست شرایط فرامین زیر را داشته و به اطاق کنترل اعلام نماید : LOCAL / REMOT – RUNING – SIGNAL ANALOG INPUT – SIGNAL ANALOG OUTPUT– FAULT – START / STOP

۱۲- هر فیدر MCC می‌بایست شرایط فرامین زیر را داشته و به اطاق کنترل اعلام نماید : LOCAL / REMOT – RUNING – FAULT – START / STOP

۱۳- هر فیدر 1-0 می‌بایست شرایط فرامین زیر را داشته و بر روی چراغ سیگنال نمایش دهد : ON – OFF – FAULT

۱۴- وایرینگ قدرت داخلی تابلو از شمش ها تا ترمینال خروجی تابلو با وایر در ۳ رنگ قرمز ، زرد و مشکی انجام شود.

۱۵- سایز وایرینگ قدرت بر اساس رنج نهایی کلید حرارتی هر فیدر محاسبه و انجام گردد.

۱۶- نصب چراغ سیگنال در3 عدد رنگ (قرمز – سبز – زرد) برروی درب تابلو جهت نمایش وضعیت ON – OFF – FAULT مربوط به کلید اصلی و همچنین مربوط به تمامی فیدر ها.

۱۷- نصب ۳ عدد چراغ سیگنال جهت نمایش برق ورودی تابلو به رنگ قرمز انجام گردد.(R-S-T)

۱۸- باس بار اصلی تابلو شمش مسی سایز ۱۰۰*۱۰ میلی متر در نظرگرفته شود.

۱۹-باس بار نول در هر تابلو در نظر گرفته شود.

۲۰- باس بار ارت در هر تابلو درنظرگرفته شود.

۲۱-جهت تابلو INCOMING تمامی تجهیزات اندازه گیری(CT , و ...) لحاظ گردد و قابلیت نمایش جریان و ولتاژ هر خط بر روی درب تابلو فراهم شود.

تجهیزات داخل تابلو بصورت کلی شامل ۶۱ آیتم مطابق جدول زیرمی باشد:

Item	Tag	Power / MCC		Amper	کلید	Order	کنتاکور	Order	بی متال	Order	کمکی کلید	رله فالت کلید	دسته روتاری کلید	کمکی کنتاکتور	کابل ریست بی متال	مینیاتوری	Relay base	Single relay	Signal Red	Signal Green	Signal Yellow
1	Spare - 1	22	1	39.64	42-52	3RV2031-4WA10	50.0	3RT2036-1AP00	36-50	3RU2146-4HB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
2	Fedeer - 1	15	2	27.03	32-40	3RV2031-4UA10	38.0	3RT2028-1AP00	22-32	3RU2136-4EB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
3	Fedeer - 2	15	3	27.03	32-40	3RV2031-4UA10	38.0	3RT2028-1AP00	22-32	3RU2136-4EB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
4	Fedeer - 3	15	4	27.03	32-40	3RV2031-4UA10	38.0	3RT2028-1AP00	22-32	3RU2136-4EB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
5	Fedeer - 4	15	5	27.03	32-40	3RV2031-4UA10	38.0	3RT2028-1AP00	22-32	3RU2136-4EB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
6	Fedeer - 5	15	6	27.03	32-40	3RV2031-4UA10	38.0	3RT2028-1AP00	22-32	3RU2136-4EB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
7	Fedeer - 6	15	7	27.03	32-40	3RV2031-4UA10	38.0	3RT2028-1AP00	22-32	3RU2136-4EB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
8	Fedeer - 7	15	8	27.03	32-40	3RV2031-4UA10	38.0	3RT2028-1AP00	22-32	3RU2136-4EB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
9	Fedeer - 8	15	9	27.03	32-40	3RV2031-4UA10	38.0	3RT2028-1AP00	22-32	3RU2136-4EB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
10	Spare - 2	15	10	27.03	32-40	3RV2031-4UA10	38.0	3RT2028-1AP00	22-32	3RU2136-4EB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
11	Spare - 3	15	11	27.03	32-40	3RV2031-4UA10	38.0	3RT2028-1AP00	22-32	3RU2136-4EB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
12	Fedeer - 9	11	12	19.82	27-32	3RV2021-4EA10	32.0	3RT2027-1AP00	18-25	3RU2136-4DB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
13	Spare - 4	11	13	19.82	27-32	3RV2021-4EA10	32.0	3RT2027-1AP00	18-25	3RU2136-4DB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
14	Fedeer - 10	7.5	14	13.51	18-25	3RV2021-4DA10	25.0	3RT2026-1AP00	11-16	3RU2136-4AB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
15	Fedeer - 11	7.5	15	13.51	18-25	3RV2021-4DA10	25.0	3RT2026-1AP00	11-16	3RU2136-4AB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
16	Fedeer - 12	7.5	16	13.51	18-25	3RV2021-4DA10	25.0	3RT2026-1AP00	11-16	3RU2136-4AB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
17	Spare - 5	7.5	17	13.51	18-25	3RV2021-4DA10	25.0	3RT2026-1AP00	11-16	3RU2136-4AB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
18	Fedeer - 13	5.5	18	9.91	12-17	3RV2031-4TA10	17.0	3RT2025-1AP00	9-12.5	3RU2136-1KB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
19	Fedeer - 14	5.5	19	9.91	12-17	3RV2031-4TA10	17.0	3RT2025-1AP00	9-12.5	3RU2136-1KB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
20	Fedeer - 15	5.5	20	9.91	12-17	3RV2031-4TA10	17.0	3RT2025-1AP00	9-12.5	3RU2136-1KB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
21	Fedeer - 16	5.5	21	9.91	12-17	3RV2031-4TA10	17.0	3RT2025-1AP00	9-12.5	3RU2136-1KB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
22	Fedeer - 17	5.5	22	9.91	12-17	3RV2031-4TA10	17.0	3RT2025-1AP00	9-12.5	3RU2136-1KB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
23	Fedeer - 18	5.5	23	9.91	12-17	3RV2031-4TA10	17.0	3RT2025-1AP00	9-12.5	3RU2136-1KB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
24	Fedeer - 19	5.5	24	9.91	12-17	3RV2031-4TA10	17.0	3RT2025-1AP00	9-12.5	3RU2136-1KB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
25	Fedeer - 20	5.5	25	9.91	12-17	3RV2031-4TA10	17.0	3RT2025-1AP00	9-12.5	3RU2136-1KB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
26	Fedeer - 21	5.5	26	9.91	12-17	3RV2031-4TA10	17.0	3RT2025-1AP00	9-12.5	3RU2136-1KB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
27	Fedeer - 22	5.5	27	9.91	12-17	3RV2031-4TA10	17.0	3RT2025-1AP00	9-12.5	3RU2136-1KB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
28	Fedeer - 23	5.5	28	9.91	12-17	3RV2031-4TA10	17.0	3RT2025-1AP00	9-12.5	3RU2136-1KB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
29	Fedeer - 24	5.5	29	9.91	12-17	3RV2031-4TA10	17.0	3RT2025-1AP00	9-12.5	3RU2136-1KB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
30	Spare - 6	5.5	30	9.91	12-17	3RV2031-4TA10	17.0	3RT2025-1AP00	9-12.5	3RU2136-1KB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
31	Spare - 7	5.5	31	9.91	12-17	3RV2031-4TA10	17.0	3RT2025-1AP00	9-12.5	3RU2136-1KB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
32	Spare - 8	5.5	32	9.91	12-17	3RV2031-4TA10	17.0	3RT2025-1AP00	9-12.5	3RU2136-1KB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
33	Spare - 9	5.5	33	9.91	12-17	3RV2031-4TA10	17.0	3RT2025-1AP00	9-12.5	3RU2136-1KB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
34	Spare - 10	3	34	5.41	5.5-8	3RV2021-1HA10	7.0	3RT2015-1AP01	4.5-6.3	3RU2116-1GB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
35	Spare - 11	3	35	5.41	5.5-8	3RV2021-1HA10	7.0	3RT2015-1AP01	4.5-6.3	3RU2116-1GB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
36	Spare - 12	3	36	5.41	5.5-8	3RV2021-1HA10	7.0	3RT2015-1AP01	4.5-6.3	3RU2116-1GB0	3RV2901-1E	3RV2921-1M	3RV2926-0K	3RH2911-1FA22	3RU2900-1C	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3

Item	Tag	Power / VFD		Amper	کلید	Order	درایو	Order	کمکی کلید	رله شنت کلید	مینیاتوری	Relay base	Single relay	Signal Red	Signal Green	Signal Yellow
37	Fedeer - 25	45	37	81.08	75-93	3RV2041-4YA10	88.0	ACS580-01-088A-4	3RV2901-1E	3RV2921-1M	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
38	Fedeer - 26	45	38	81.08	75-93	3RV2041-4YA10	88.0	ACS580-01-088A-4	3RV2901-1E	3RV2921-1M	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
39	Spare - 13	45	39	81.08	75-93	3RV2041-4YA10	88.0	ACS580-01-088A-4	3RV2901-1E	3RV2921-1M	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
40	Spare - 14	22	40	39.64	42-52	3RV2031-4WA10	45.0	ACS580-01-046A-4	3RV2901-1E	3RV2921-1M	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
41	Fedeer - 27	15	41	27.03	32-40	3RV2031-4UA10	32.0	ACS580-01-033A-4	3RV2901-1E	3RV2921-1M	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
42	Fedeer - 28	15	42	27.03	32-40	3RV2031-4UA10	32.0	ACS580-01-033A-4	3RV2901-1E	3RV2921-1M	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
43	Fedeer - 29	15	43	27.03	32-40	3RV2031-4UA10	32.0	ACS580-01-033A-4	3RV2901-1E	3RV2921-1M	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
44	Fedeer - 30	15	44	27.03	32-40	3RV2031-4UA10	32.0	ACS580-01-033A-4	3RV2901-1E	3RV2921-1M	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
45	Spare - 15	15	45	27.03	32-40	3RV2031-4UA10	32.0	ACS580-01-033A-4	3RV2901-1E	3RV2921-1M	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
46	Fedeer - 31	11	46	19.82	27-32	3RV2021-4EA10	25.0	ACS580-01-026A-4	3RV2901-1E	3RV2921-1M	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
47	Fedeer - 32	11	47	19.82	27-32	3RV2021-4EA10	25.0	ACS580-01-026A-4	3RV2901-1E	3RV2921-1M	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
48	Fedeer - 33	11	48	19.82	27-32	3RV2021-4EA10	25.0	ACS580-01-026A-4	3RV2901-1E	3RV2921-1M	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
49	Fedeer - 34	11	49	19.82	27-32	3RV2021-4EA10	25.0	ACS580-01-026A-4	3RV2901-1E	3RV2921-1M	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
50	Fedeer - 35	11	50	19.82	27-32	3RV2021-4EA10	25.0	ACS580-01-026A-4	3RV2901-1E	3RV2921-1M	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
51	Spare - 16	11	51	19.82	27-32	3RV2021-4EA10	25.0	ACS580-01-026A-4	3RV2901-1E	3RV2921-1M	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
52	Spare - 17	11	52	19.82	27-32	3RV2021-4EA10	25.0	ACS580-01-026A-4	3RV2901-1E	3RV2921-1M	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
53	Spare - 18	7.5	53	13.51	18-25	3RV2021-4DA10	17.0	ACS580-01-018A-4	3RV2901-1E	3RV2921-1M	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
54	Spare - 19	5.5	54	9.91	12-17	3RV2031-4TA10	12.6	ACS580-01-12A7-4	3RV2901-1E	3RV2921-1M	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3

Item	Tag	Power /0-1		Amper	کلید	Order	کمکی کلید	رله فالت کلید	دسته روتاری کلید	مینیاتوری	Relay base	Single relay	Signal Red	Signal Green	Signal Yellow
55	Fedeer - 36	100	55	250.00	224-320	3VA1332-4EF32-0AA0	3VA9988-0AA11	3VA9988-0AB12	3VA9467-0FK21	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
56	Fedeer - 37	100	56	250.00	224-320	3VA1332-4EF32-0AA0	3VA9988-0AA11	3VA9988-0AB12	3VA9467-0FK21	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
57	Fedeer - 38	100	57	250.00	224-320	3VA1332-4EF32-0AA0	3VA9988-0AA11	3VA9988-0AB12	3VA9467-0FK21	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
58	Fedeer - 39	100	58	250.00	224-320	3VA1332-4EF32-0AA0	3VA9988-0AA11	3VA9988-0AB12	3VA9467-0FK21	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
59	Fedeer - 40	50	59	125.00	112-160	3VA1116-3EE36-0AA0	3VA9988-0AA11	3VA9988-0AB12	3VA9467-0FK21	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
60	Fedeer - 41	50	60	125.00	112-160	3VA1116-3EE36-0AA0	3VA9988-0AA11	3VA9988-0AB12	3VA9467-0FK21	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3
61	Fedeer - 42	30	61	75.00	75-93	3RV2041-4YA10	3RV2901-1E	3RV2921-1M	3RV2926-0K	5SL6106-7	2900936	2903696	XB7EV04MP3	XB7EV03MP3	XB7EV05MP3

بسمه تعالی

شرح کار تابلو برق فاز گازی واحد SAZ

تامین، مونتاژ و وایرینگ داخلی تابلو برق کشویی طرح سیواکن با مشخصات زیر:

1- تابلو فوق کشویی طرح SIVACON با کلاس حفاظتی IP42 و جهت نصب در In Door با ضخامت ورق 2 میلی متر باشد.

2- رنگ تابلو از نوع الکترو استاتیک با کد رنگ RAL7032 به ضخامت 120 میکرون باشد.

3- ابعاد تابلو ها ترجیحا 60*220*100 سانتی متر باشد.

4- جهت هر تابلو به صورت مستقل هیتر و روشنایی همراه با ترموستات و میکرو سوئیچ در نظر گرفته شود..

5- تمامی تجهیزات ، ترمینال ها و وایرینگ دارای لیبل نامبر و تگ نامبر باشند.

6- جهت تامین برق ورودی تابلو برای هر INCOMING و BUSCOPLER یک عدد کلید کشویی دژنکتور هوایی 4000 A مارک زیمنس مطابق جدول پیوست نصب گردد.

7- جهت اتصال سه فاز و نول تابلو ها به یکدیگر از باس (شمش مسی) استفاده گردد.

8- طراحی استراکچر ، جانمایی تجهیزات و طراحی مدار فرمان بر عهده شرکت مجری با تأییدیه ناظر می باشد.

9- جهت مدار فرمان هر فیدر یک عدد فیوز مینیاتوری بصورت مجزا لحاظ شود.

10- طراحی مدار باید به گونه ای باشد که هر فیدرVFDو هر فیدر MCC قابلیت استارت به صورت LOCAL – REMOT را دارا باشد.

11- هر فیدر VFD می‌بایست شرایط فرامین زیر را داشته و به اطاق کنترل اعلام نماید : – LOCAL / REMOTE – RUNING – SIGNAL ANALOG INPUT – SIGNAL ANALOG OUTPUT– FAULT – START / STOP

12- هر فیدر MCC می‌بایست شرایط فرامین زیر را داشته و به اطاق کنترل اعلام نماید : – LOCAL / REMOTE – RUNING – FAULT – START / STOP

13- هر فیدر 1-0 می‌بایست شرایط فرامین زیر را داشته و بر روی چراغ سیگنال نمایش دهد : ON – OFF – FAULT

14- وایرینگ قدرت داخلی تابلو از شمش ها تا ترمینال خروجی تابلو با وایر در 3 رنگ قرمز ، زرد و مشکی انجام شود.

15- سایز وایرینگ قدرت بر اساس رنج نهایی کلید حرارتی هر فیدر محاسبه و انجام گردد.

16- نصب چراغ سیگنال در3 عدد رنگ (قرمز – سبز – زرد) برروی درب تابلو جهت نمایش وضعیت ON – OFF – FAULT مربوط به کلید اصلی و همچنین مربوط به تمامی فیدر ها.

17- نصب 3 عدد چراغ سیگنال جهت نمایش برق ورودی تابلو به رنگ قرمز انجام گردد.(R-S-T)

18- باس بار اصلی تابلو شمش مسی سایز 100*10 میلی متر در نظرگرفته شود.

19- باس بار نول در هر تابلو در نظر گرفته شود.

20- باس بار ارت در هر تابلو درنظرگرفته شود.

21- جهت تابلو های INCOMING و BUSCOPLER تمامی تجهیزات اندازه گیری و فرامین (Local & Remote , CT و ...) لحاظ گردد و قابلیت نمایش جریان و ولتاژ هر خط بر روی درب تابلو فراهم شود.

22- تجهیزات داخل تابلو بصورت کلی شامل 6 صفحه به پیوست می باشد.

National Petrochemical Company

Petrochemical Research and Technology Co. (Arak Site)

SAZ Catalyst Plant

MCC PANEL

1/6

Item	Description	Brand	Product No.	FEEDER TYPE	Incoming A	Incoming B	Bus Copler	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection
				FEEDER CODE	Feeder Incoming (4000A)	Feeder Incoming (4000A)	Feeder Incoming (4000A)	Feeder Spare 2 (20KW)	Feeder Spare 3 (20KW)	Feeder P6014 (15KW)	Feeder Spare 4 (15KW)	Feeder P8011 (11KW)	Feeder Spare 7 (11KW)	Feeder Spare 8 (11KW)
				Incoming Location				B	B	B	B	B	B	B
1	withdrawable circuit breaker with guide frame 3-pole, size III, IEC In=4000A to 690V, AC50/60Hz Icu=100kA at 500V rear connection horizontal Overcurrent release ETU 27 LSING protection adjustable 0.4-1 in Ground fault/N protection integrated Motorized/manual operating mechanism with spring charging motor AC 50/60 Hz 208-240 V or 220-250 V DC Activation AC 50/60 Hz 230 V, 220 V DC With 1st auxiliary release Shunt release "F", F1 50/60 Hz 230 V AC/220 V DC, 100% on-load factor With 2nd auxiliary release "F", F2 Shunt release 230 V AC/220 V DC, 100% on-load factor 2NO+2NC		3WL1340-4DG36-4GG2		1	1	1							
2	Circuit breaker size S2 for motor protection, CLASS 10 A-release 35...45 A N-release 650 A screw terminal Standard switching capacity		3RV2031-4VA10					1	1					
3	Circuit breaker size S2 for motor protection, CLASS 10 A-release 32...40 A N-release 585 A screw terminal Standard switching capacity		3RV2031-4UA10							1	1			
4	Circuit breaker size S0 for motor protection, CLASS 10 A-release 27...32 A N-release 400 A screw terminal Standard switching capacity		3RV2021-4EA10									1	1	1
5	Door-coupling rotary operating mechanism IP64 for circuit breaker Size S00...S3, black 330 mm shaft with support		3RV2926-0K					1	1	1	1	1	1	1
6	Auxiliary switch transverse 1 NO+1 NC screw terminal for circuit breaker 3RV2		3RV2901-1E					1	1	1	1	1	1	1
7	signaling switch for circuit breaker 3RV2 with screw terminal		3RV2921-1M					1	1	1	1	1	1	1
8	power contactor, AC-3 50 A, 22 kW / 400 V 1 NO + 1 NC, 230 V AC, 50 Hz, 3-pole, Size S2, screw terminal		3RT2036-1AP00					1	1					
9	Power contactor, AC-3 38 A, 18.5 kW / 400 V 1 NO + 1 NC, 230 V AC 50 Hz, 3-pole, size S0 screw terminals		3RT2028-1AP00							1	1			
10	Power contactor, AC-3 32 A, 15 kW / 400 V 1 NO + 1 NC, 230 V AC, 50 Hz 3-pole, size S0 screw terminals		3RT2027-1AP00									1	1	1
11	Auxiliary switch on the front, 2 NO + 2 NC Current path 1 NO, 1 NC, 1 NC, 1 NO for 3RH and 3RT screw terminal .3/.4, .1/.2,		3RH2911-1FA22					1	1	1	1	1	1	1
12	Overload relay 36...45 A Thermal For motor protection Size S2, Class 10 Contactor mounting Main circuit: Screw Auxiliary circuit: Screw Manual-Automatic-Reset		3RU2136-4GB0					1	1					
13	Overload relay 22...32 A Thermal For motor protection Size S2, Class 10 Contactor mounting Main circuit: Screw Auxiliary circuit: Screw Manual-Automatic-Reset		3RU2136-4EB0							1	1			
14	Overload relay 18...25 A Thermal For motor protection Size S2, Class 10 Contactor mounting Main circuit: Screw Auxiliary circuit: Screw Manual-Automatic-Reset		3RU2136-4DB0									1	1	1
15	Cable release for reset 0.6 m for Size S00...S3		3RU1900-1C					1	1	1	1	1	1	1
16	Miniature circuit breaker 230/400 V 6kA, 1-pole, C, 6A		5SL6106-7		1	1	1	1	1	1	1	1	1	1
17	Miniature circuit breaker 230/400 V 6kA, 1-pole, C, 4A		5SL6104-7		5	5	5							
18	Harmony, Modular multifunction 3-phase supply control relay, 5 A, 2 CO, 220...480 V AC		RM35TF30		1	1	1							
19	RIF-3... relay base, for octal relay with 3 changeover contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5		2900936		2	2	2	2	2	2	2	2	2	2
20	Plug-in octal relays with power contacts, 3 changeover contacts, test button, mechanical switching position indicator, input voltage: 230VAC		2903696		2	2	2	2	2	2	2	2	2	2
21	Digital monitoring relay for residual current monitoring (with current transformer 3UL23) Setting range 0.03...40 A separate for warning threshold and switch-off value supply voltage 24 ... 240 V AC/DC, 50 .. 60Hz ON delay and tripping delay 0.1 to 20 s Shutdown hysteresis up to 50% Warning hysteresis 5% fixed Width 22.5 mm, 2 change-over contacts with or without fault buffer spring-type connection system		3UG4625-2CW30		1	1	1							
22	EasyLogic PM2220, Power & Energy meter, up to the 15th harmonic, LCD display, RS485, RJ45 quick click CTs		PM2220		1	1	1							
23	Current Transformer , Raito : 4000/5A, Burden: 40VA, Class: 0.5		AL5-4000/5		3	3	3							
24	Current Transformer , Raito : 40/1A, Burden: 10VA, Class: 0.5		AL1-40/1					1	1					
25	Current Transformer , Raito : 30/1A, Burden: 10VA, Class: 0.5		AL1-30/1							1	1			
26	Current Transformer , Raito : 20/1A, Burden: 10VA, Class: 0.5		AL1-20/1									1	1	1
27	Current Transducer Ziegler PRO - CA / AVG 1A 40-300U 4-20mA		CA-AVG-01-F-I-02					1	1	1	1	1	1	1
28	Harmony, Modular timing relay, 8 A, 2 CO, 0.1 s…100 h, multifunction, 12..240 V AC/DC		RE22R2MMW		1	1	1							
29	Harmony XB7, Monolithic selector switch, plastic, black, Ø22, stay put, 3 positions, stay put, 2 NO		XB7ND33		2	2	2							
30	Harmony XB7, Monolithic push button, plastic, green, Ø22, spring return, unmarked, 1 NO		XB7NA31		1	1	1							
31	Harmony XB7, Monolithic push button, plastic,red, Ø22, spring return, unmarked, 1 NC		XB7NA42		1	1	1							
32	Pilot light, Harmony XB7, round Ø22 mm, Green, integral LED, 230...240 V, faston connectors		XB7EV03MP3		2	2	2	1	1	1	1	1	1	1
33	Pilot light, Harmony XB7, round Ø22 mm, Red, integral LED, 230...240 V, faston connectors		XB7EV04MP3		5	5	5	1	1	1	1	1	1	1
34	Pilot light, Harmony XB7, round Ø22 mm, Yello, integral LED, 230...240 V, faston connectors		XB7EV05MP3		2	2	2	1	1	1	1	1	1	1

National Petrochemical Company

Petrochemical Research and Technology Co. (Arak Site)

SAZ Catalyst Plant

MCC PANEL **2/6**

Item	Description	Brand	FEEDER TYPE	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection
			FEEDER CODE	Feeder P 7021 (7.5KW)	Feeder P 7022 (7.5KW)	Feeder P 9022 (7.5KW)	Feeder FAN 1 (7.5KW)	Feeder FAN 2 (7.5KW)	Feeder Unit-Heater 1 (7.5KW)	Feeder Unit-Heater 2 (7.5KW)	Feeder Unit-Heater 3 (7.5KW)	Feeder Spare 10 (7.5KW)	Feeder Spare 11 (7.5KW)
			Incoming Location	B	B	B	B	B	B	B	B	B	B
			Product No.										
1	Circuit breaker size S0 for motor protection, CLASS 10 A-release 18...25 A N-release 325 A Screw terminal Standard switching capacity		3RV2021-4DA10	1	1	1	1	1	1	1	1	1	1
2	Door-coupling rotary operating mechanism IP64 for circuit breaker Size S00...S3, black 330 mm shaft with support		3RV2926-0K	1	1	1	1	1	1	1	1	1	1
3	Auxiliary switch transverse 1 NO+1 NC screw terminal for circuit breaker 3RV2		3RV2901-1E	1	1	1	1	1	1	1	1	1	1
4	signaling switch for circuit breaker 3RV2 with screw terminal		3RV2921-1M	1	1	1	1	1	1	1	1	1	1
5	power contactor, AC-3 25 A, 11 kW / 400 V 1 NO + 1 NC, 230 V AC, 50 Hz, 3-pole, Size S0 screw terminal		3RT2026-1AP00	1	1	1	1	1	1	1	1	1	1
6	Auxiliary switch on the front, 2 NO + 2 NC Current path 1 NO, 1 NC, 1 NC, 1 NO for 3RH and 3RT screw terminal .3/.4, .1/.2,		3RH2911-1FA22	1	1	1	1	1	1	1	1	1	1
7	Overload relay 11...16 A Thermal For motor protection Size S2, Class 10 Contactor mounting Main circuit: Screw Auxiliary circuit: Screw Manual-Automatic-Reset		3RU2136-4AB0	1	1	1	1	1	1	1	1	1	1
8	Current Transformer , Raito : 15/1A, Burden: 10VA, Class: 0.5		AL1-15/1	1	1	1	1	1	1	1	1	1	1
9	Current Transducer Ziegler PRO - CA / AVG 1A 40-300U 4-20mA		CA-AVG-01-F-I-02	1	1	1	1	1	1	1	1	1	1
10	Cable release for reset 0.6 m for Size S00...S3		3RU1900-1C	1	1	1	1	1	1	1	1	1	1
11	Miniature circuit breaker 230/400 V 6kA, 1-pole, C, 6A		5SL6106-7	1	1	1	1	1	1	1	1	1	1
12	RIF-3... relay base, for octal relay with 3 changeover contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5		2900936	2	2	2	2	2	2	2	2	2	2
13	Plug-in octal relays with power contacts, 3 changeover contacts, test button, mechanical switching position indicator, input voltage: 230VAC		2903696	2	2	2	2	2	2	2	2	2	2
14	Pilot light, Harmony XB7, round Ø22 mm, Green, integral LED, 230...240 V, faston connectors		XB7EV03MP3	1	1	1	1	1	1	1	1	1	1
15	Pilot light, Harmony XB7, round Ø22 mm, Red, integral LED, 230...240 V, faston connectors		XB7EV04MP3	1	1	1	1	1	1	1	1	1	1
16	Pilot light, Harmony XB7, round Ø22 mm, Yello, integral LED, 230...240 V, faston connectors		XB7EV05MP3	1	1	1	1	1	1	1	1	1	1

National Petrochemical Company

Petrochemical Research and Technology Co. (Arak Site)

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MCC PANEL **3/6**

Item	Description	Brand	FEEDER TYPE	Ongoing Type : Motor Protection	Ongoing Type : Motor Protection	Ongoing Type : Motor Protection	Ongoing Type : Motor Protection	Ongoing Type : Motor Protection	Ongoing Type : Motor Protection	Ongoing Type : Motor Protection	Ongoing Type : Motor Protection	Ongoing Type : Motor Protection	Ongoing Type : Motor Protection
			FEEDER CODE	Feeder P 111 (5.5KW)	Feeder Ref 5 (5.5KW)	Feeder Ref 6 (5.5KW)	Feeder P-CF401 (5.5KW)	Feeder P-CF411 (5.5KW)	Feeder P-CF421 (5.5KW)	Feeder P-CF621 (5.5KW)	Feeder Spare 9 (5.5KW)	Feeder Spare 10 (5.5KW)	FeederSpare 11 (5.5KW)
			Incoming Location	B	B	B	B	B	B	B	B	B	B
			Product No.										
1	Circuit breaker size S2 for motor protection, CLASS 10 A-release 12...17 A N-release 260 A screw terminal Standard switching capacity		3RV2031-4TA10	1	1	1	1	1	1				
2	Circuit breaker size S0 for motor protection, CLASS 10 A-release 5.5...8 A N-release 104 A screw terminal Standard switching capacity		3RV2021-1HA10							1	1	1	1
3	Door-coupling rotary operating mechanism IP64 for circuit breaker Size S00...S3, black 330 mm shaft with support		3RV2926-0K	1	1	1	1	1	1	1	1	1	1
4	Auxiliary switch transverse 1 NO+1 NC screw terminal for circuit breaker 3RV2		3RV2901-1E	1	1	1	1	1	1	1	1	1	1
5	signaling switch for circuit breaker 3RV2 with screw terminal		3RV2921-1M	1	1	1	1	1	1	1	1	1	1
6	power contactor, AC-3 17 A, 7.5 kW / 400 V 1 NO + 1 NC, 230 V AC, 50 Hz, 3-pole, Size S0 screw terminal		3RT2025-1AP00	1	1	1	1	1	1				
7	Power contactor, AC-3 7 A, 3 kW / 400 V 1 NO, 230 V AC, 50 / 60 Hz 3-pole, Size S00 screw terminal		3RT2015-1AP01							1	1	1	1
8	Auxiliary switch on the front, 2 NO + 2 NC Current path 1 NO, 1 NC, 1 NC, 1 NO for 3RH and 3RT screw terminal .3/.4, .1/.2,		3RH2911-1FA22	1	1	1	1	1	1	1	1	1	1
9	Overload relay 9...12.5 A Thermal For motor protection Size S2 Class 10 Contactor mounting Main circuit: screw terminal Auxiliary circuit: screw terminal Manual-Automatic-Reset		3RU2136-1KB0	1	1	1	1	1	1				
10	Overload relay 4.5...6.3 A Thermal For motor protection Size S00, Class 10 Contactor mounting Main circuit: Screw Auxiliary circuit: Screw Manual-Automatic-Reset		3RU2116-1GB0							1	1	1	1
11	Current Transformer , Raito : 10/1A, Burden: 10VA, Class: 0.5		AL1-10/1	1	1	1	1	1	1	1	1	1	1
12	Current Transducer Ziegler PRO - CA / AVG 1A 40-300U 4-20mA		CA-AVG-01-F-I-02	1	1	1	1	1	1	1	1	1	1
13	Cable release for reset 0.6 m for Size S00...S3		3RU1900-1C	1	1	1	1	1	1	1	1	1	1
14	Miniature circuit breaker 230/400 V 6kA, 1-pole, C, 6A		5SL6106-7	1	1	1	1	1	1	1	1	1	1
15	RIF-3... relay base, for octal relay with 3 changeover contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5		2900936	2	2	2	2	2	2	2	2	2	2
16	Plug-in octal relays with power contacts, 3 changeover contacts, test button, mechanical switching position indicator, input voltage: 230VAC		2903696	2	2	2	2	2	2	2	2	2	2
17	Pilot light, Harmony XB7, round Ø22 mm, Green, integral LED, 230...240 V, faston connectors		XB7EV03MP3	1	1	1	1	1	1	1	1	1	1
18	Pilot light, Harmony XB7, round Ø22 mm, Red, integral LED, 230...240 V, faston connectors		XB7EV04MP3	1	1	1	1	1	1	1	1	1	1
19	Pilot light, Harmony XB7, round Ø22 mm, Yello, integral LED, 230...240 V, faston connectors		XB7EV05MP3	1	1	1	1	1	1	1	1	1	1

National Petrochemical Company

Petrochemical Research and Technology Co. (Arak Site)

SAZ Catalyst Plant

MCC PANEL **4/6**

Item	Description	Brand	FEEDER TYPE	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control	Outgoing Type : Speed Control
			FEEDER CODE	Feeder AV6014 (22KW)	Feeder Spare 16 (22KW)	Feeder AV 7011A (7.5KW)	Feeder AV 7011B (7.5KW)	Feeder AV 7021A (7.5KW)	Feeder AV 7021B (7.5KW)	Feeder AV 8011 (7.5KW)	Feeder Spare 18 (7.5KW)	Feeder Spare 19 (7.5KW)	Feeder AV 7013 (5.5KW)	Feeder Spare 20 (5.5KW)
			Incoming Location	B	B	B	B	B	B	B	B	B	B	B
			Product No.											
1	Circuit breaker size S3 for motor protection, CLASS 10 A-release 36...50 A N-release 650 A screw terminal Standard switching capacity		3RV2041-4HA10	1	1									
2	Circuit breaker size S0 for motor protection, CLASS 10 A-release 18...25 A N-release 325 A Screw terminal Standard switching capacity		3RV2021-4DA10			1	1	1	1	1	1	1		
3	Circuit breaker size S2 for motor protection, CLASS 10 A-release 12...17 A N-release 260 A screw terminal Standard switching capacity		3RV2031-4TA10										1	1
4	Auxiliary switch transverse 1 NO+1 NC screw terminal for circuit breaker 3RV2		3RV2901-1E	1	1	1	1	1	1	1	1	1	1	1
5	signaling switch for circuit breaker 3RV2 with screw terminal		3RV2921-1M	1	1	1	1	1	1	1	1	1	1	1
6	Inverter, 380-480 V, Rated power 22 kW , IN: 45 A Frequency Converter		ACS580-01-046A-4	1	1									
7	Inverter, 380-480 V, Rated power 7.5 kW , IN: 17 A Frequency Converter		ACS580-01-018A-4			1	1	1	1	1	1	1		
8	Inverter, 380-480 V, Rated power 5.5 kW , IN: 12.6 A Frequency Converter		ACS580-01-12A7-4										1	1
9	Miniature circuit breaker 230/400 V 6kA, 1-pole, C, 6A		5SL6106-7	1	1	1	1	1	1	1	1	1	1	1
10	RIF-3... relay base, for octal relay with 3 changeover contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5		2900936	3	3	3	3	3	3	3	3	3	3	3
11	Plug-in octal relays with power contacts, 3 changeover contacts, test button, mechanical switching position indicator, input voltage: 230VAC		2903696	3	3	3	3	3	3	3	3	3	3	3
12	Pilot light, Harmony XB7, round Ø22 mm, Green, integral LED, 230...240 V, faston connectors		XB7EV03MP3	1	1	1	1	1	1	1	1	1	1	1
13	Pilot light, Harmony XB7, round Ø22 mm, Red, integral LED, 230...240 V, faston connectors		XB7EV04MP3	1	1	1	1	1	1	1	1	1	1	1
14	Pilot light, Harmony XB7, round Ø22 mm, Yello, integral LED, 230...240 V, faston connectors		XB7EV05MP3	1	1	1	1	1	1	1	1	1	1	1

National Petrochemical Company			FEEDER TYPE	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection
Petrochemical Research and Technology Co. (Arak Site) SAZ Catalyst Plant MCC PANEL **5/6**			FEEDER CODE	Feeder Heater 1 (100KVA)	Feeder Heater 2 (100KVA)	Feeder Spare 21 (100KVA)	Feeder Spare 22 (100KVA)	Feeder Spare 23 (50KVA)	Feeder Spare 24 (30KVA)
Item	Description	Brand	Incoming Location	**A**	**B**	**A**	**A**	**B**	**B**
			Product No.						
1	circuit breaker 3VA1 IEC frame 400 breaking capacity class S Icu=36kA @ 415V 3-pole, line protection TM240, ATAM, In=320A overload protection Ir=224A...320A short-circuit protection Ii=5...10 x In nut keeper kit		3VA1332-4EF32-0AA0	**1**	**1**	**1**	**1**		
2	circuit breaker 3VA1 IEC frame 160 breaking capacity class N Icu=25kA @ 415V 3-pole, line protection TM220, ATFM, In=160A overload protection Ir=112A...160A short-circuit protection Ii=10 x In clamp connection		3VA1116-3EE36-0AA0					**1**	
3	circuit breaker 3VA1 IEC frame 160 breaking capacity class N Icu=25kA @ 415V 3-pole, line protection TM220, ATFM, In=100A overload protection Ir=70A...100A short-circuit protection Ii=10 x In clamp connection		3VA1110-3EE36-0AA0						**1**
4	Auxiliary switch changeover contacts type HP (14MM) accessory for 3VA1 and 3VA20 up to 3VA25		3VA9988-0AA11	**1**	**1**	**1**	**1**	**1**	**1**
5	Trip alarm switch changeover contacts type HQ (7MM) accessory for 3VA1 and 3VA20 up to 3VA25		3VA9988-0AB12	**1**	**1**	**1**	**1**	**1**	**1**
6	door mounted rotary operator standard IEC IP65 with door interlock accessory for: 3VA1 400/630 3VA2 400/630		3VA9467-0FK21	**1**	**1**	**1**	**1**	**1**	**1**
7	Miniature circuit breaker 230/400 V 6kA, 1-pole, C, 6A		5SL6106-7	**1**	**1**	**1**	**1**	**1**	**1**
8	Pilot light, Harmony XB7, round Ø22 mm, Green, integral LED, 230...240 V, faston connectors		XB7EV03MP3	**1**	**1**	**1**	**1**	**1**	**1**
9	Pilot light, Harmony XB7, round Ø22 mm, Red, integral LED, 230...240 V, faston connectors		XB7EV04MP3	**1**	**1**	**1**	**1**	**1**	**1**
10	Pilot light, Harmony XB7, round Ø22 mm, Yello, integral LED, 230...240 V, faston connectors		XB7EV05MP3	**1**	**1**	**1**	**1**	**1**	**1**

National Petrochemical Company			FEEDER TYPE	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection	Outgoing Type : Motor Protection
Petrochemical Research and Technology Co. (Arak Site) SAZ Catalyst Plant MCC PANEL **6/6**			FEEDER CODE	Feeder Socket 1 (20KVA)	Feeder Socket 2 (20KVA)	Feeder Socket 3 (20KVA)	Feeder Socket 4 (20KVA)	Feeder Spare 25 (20KVA)
Item	Description	Brand	Incoming Location	**A**	**A**	**B**	**B**	**B**
			Product No.					
1	circuit breaker 3VA1 IEC frame 160 breaking capacity class N Icu=25kA @ 415V 3-pole, line protection TM220, ATFM, In=63A overload protection Ir=44A...63A short-circuit protection Ii=10 x In clamp connection		3VA1163-3EE36-0AA0	**1**	**1**	**1**	**1**	**1**
2	Auxiliary switch changeover contacts type HP (14MM) accessory for 3VA1 and 3VA20 up to 3VA25		3VA9988-0AA11	**1**	**1**	**1**	**1**	**1**
3	Trip alarm switch changeover contacts type HQ (7MM) accessory for 3VA1 and 3VA20 up to 3VA25		3VA9988-0AB12	**1**	**1**	**1**	**1**	**1**
4	door mounted rotary operator standard IEC IP65 with door interlock accessory for: 3VA1 400/630 3VA2 400/630		3VA9467-0FK21	**1**	**1**	**1**	**1**	**1**
5	signaling switch for circuit breaker 3RV2 with screw terminal		3RV2921-1M	**1**	**1**	**1**	**1**	**1**
6	Miniature circuit breaker 230/400 V 6kA, 1-pole, C, 6A		5SL6106-7	**1**	**1**	**1**	**1**	**1**
7	Pilot light, Harmony XB7, round Ø22 mm, Green, integral LED, 230...240 V, faston connectors		XB7EV03MP3	**1**	**1**	**1**	**1**	**1**
8	Pilot light, Harmony XB7, round Ø22 mm, Red, integral LED, 230...240 V, faston connectors		XB7EV04MP3	**1**	**1**	**1**	**1**	**1**
9	Pilot light, Harmony XB7, round Ø22 mm, Yello, integral LED, 230...240 V, faston connectors		XB7EV05MP3	**1**	**1**	**1**	**1**	**1**

تمام 20 صفحه این سند امضا شده توسط:
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